ART. XVII. CRITICAL NOTES ON THE WOODPECKERS

By W. E. Clyde Todd

INTRODUCTION

The Woodpeckers (Family Picidæ) have long been one of my favorite groups of birds. In several earlier papers I had occasion to discuss the systematics of certain species of this family, and to describe a number of new forms. With the recent completion of a study of all the woodpeckers in the collection of the Carnegie Museum, I find that we have no fewer than 3,939 specimens, representing 263 species and subspecies. Much of the critical comment developed in the course of this study must necessarily be reserved for future papers, but there are some cases which might well be given immediate publicity for the benefit of others. The present paper deals with such American forms represented in our collection as appear to be new, imperfectly understood, inadequately described, or presumably invalid. To the fourteen accepted forms of Woodpeckers the types of which are in the Museum collection, there are here added four more which are apparently new or unrecognized.

Acknowledgments are due to the authorities of the following institutions for the loan of specimens needed for comparison in making this study: the American Museum of Natural History; the Museum of Comparative Zoölogy; the University of Michigan Museum of Zoology; and the U. S. National Museum. I am also under obligations to Mr. N. B. Kinnear of the British Museum (Natural History) for making certain comparisons of material sent him for that purpose, and to Dr. Herbert Friedmann for a similar courtesy. Also, Dr. Friedmann and Mr. James Bond have supplied transcriptions of some original descriptions not available otherwise, and Mr. Samuel M. Klages his kindly made translations of some descriptions from the Portuguese. All measurements are in millimeters, and that for the bill is of the exposed culmen.

The number of genera to be recognized in this family is a debatable question, on which probably no two authors would agree. I do not hold with those who, like Ridgway, recognize an excessive number, nor yet with those who go to the other extreme and "lump" such apparently wellcharacterized groups as *Centurus*, *Tripsurus*, *Leuconerpes*, and *Chryserpes* under *Melanerpes*. In my judgment more weight should be given to color pattern in discriminating the genera of Woodpeckers, aside from purely structural characters; it is often a good clue to their relationships.

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ssued December 16, 1946.

Centurus carolinus zebra (Boddaert).

Messrs. Burleigh and Lowery (Occ. Papers Mus. Zool. Louisiana State Univ., No. 17, 1944, 293-301) have lately worked out the races of this species. They left the northern range of the Mississippi Valley form indeterminate, as they had no specimens from east of Ohio. However, our specimens from Michigan, Ontario (Amherstburg), and western Pennsylvania clearly belong to this race, whose best character seems to be the distinct yellowish gray tone of the underparts—a feature which in southern specimens is mostly lacking. The relative amount of white on the upperparts, which these authors claim is another differentiating character, is not nearly so well marked, and it is moreover subject to variation from wear. In general, these northern birds have rather more white on the outer rectrices than southern examples have, but the difference is inconstant.

Centurus aurifrons incanescens, subsp. nov.

Type, No. 113,850, Collection Carnegie Museum, adult male; 12 miles south of Marathon, Brewster County, Texas, May 5, 1933; George M. Sutton.

Subspecific characters.—Similar to Centurus aurifrons aurifrons (Wagler), as represented by fourteen specimens from Mexico (Coahuila and Nuevo Leon) and the lower Rio Grande region of Texas, but underparts paler gray (pale smoke gray of Ridgway); crown also paler gray (neutral gray to light neutral gray); forehead paler yellow; and nape orange rufous (in the brightest colored specimens) to aniline yellow (in the dullest colored usually females); and yellow of the underparts paler.

Range.—"Big Bend" region of western Texas.

Remarks.—The Picus aurifrons of Wagler (Isis, 1829, 512) was described from "Mexico," and according to Salvin and Godman (Biol. Centr.-Am., Aves, 2, 1895, 418) the type came from the State of Hidalgo. I have seen no specimens from that state, but it is unlikely that those from Coahuila and Nuevo Leon would be different. As a series the latter are fairly uniform in the color of the underparts, which are between light grayish olive and smoke gray. The crown is wholly (female) or partially (male) neutral gray to deep neutral gray, with the frontal region decidedly yellow, and the nape ochraceous orange to Mars yellow. The western Texas birds (ten specimens examined) are so easily separable from the Mexican birds by the characters above listed that it is odd that Messrs. Sutton and Van Type did not describe them together with the other new races from this region.

Tripsurus pulcher (Sclater).

Three specimens: El Tambor, Santander, Colombia.

Chapman's collectors did not find this form in Colombia. It is allied to T. chrysauchen, and like this form, it has a white median dorsal stripe. But it is much smaller, and the red on the pileum is much more extensive, reaching as it does (in the male) to the nape, and leaving only a narrow band of yellow behind it. Females of the two forms are still more different from each other.

Tripsurus cruentatus cruentatus (Boddaert).

A few years ago (Ann. Carnegie Mus., 25, 1937, 250) I commented on the strange relationship between this form and the *Tripsurus rubrifrons* of Spix and expressed the opinion that hybridism was the explanation. But now, after again reviewing the matter, I find myself favoring the alternative color-phase theory. Parallel cases are unusual but not unknown. The collector of these specimens (S. M. Klages) regarded them as belonging to one and the same species. The flaw in the hybridism theory, as I suggested at the time, is that we know of no region where "*rubrifrons*" occurs alone. Should such be found, it might put a different aspect on the case.

Piculus xanthochlorus xanthochlorus (Sclater and Salvin).

Four male woodpeckers coming from the Santa Marta region of Colombia, and which I had identified as *Chloronerpes chrysochlorus aurosus* Nelson, were discussed in the paper in Ann. Carnegie Mus., 14, 1922, 237. The receipt of a pair of birds from the Maracaibo region of Venezuela has put the case in an entirely different light. The male of this pair (No. 88,771, Sabana de Mendoza) is closely matched by a Colombian male (44,616, Don Diego). The female (No. 90,769, Guachi), on the other hand, is strikingly different from the male. Its upperparts are much darker olive, with a decided grayish shade on the scapulars, inner secondaries, and tertiaries; moreover, the entire pileum and nape (with the crest) are not concolor with the back, as in the various races of *chrysochlorus*, but brownish yellow (raw sienna of Ridgway), in decided contrast; the throat is colored the same, but the maxillary stripe is paler, more buffy. Except

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for the grayish tone on the inner remiges the bird fits the description and plate of *Chloronerpes xanthochlorus* Sclater and Salvin in Hargitt, Cat. Birds British Mus., 18, 1890, 73, pl. 1. This author remarks (p. 69, note) on the strange circumstance that both his supposed males had no red on the head and says that the female was unknown. Chapman (Bull. Am. Mus. Nat. Hist., 36, 1917, 347) records an undoubted female from Colombia, and he adds that it agrees with Hargitt's plate. It would appear, therefore, that up to this time all of the recorded specimens of *aurosus* happened to be males, while those of *xanthochlorus* were females. In other words, *aurosus* Nelson is based on the male, and *xanthochlorus* Sclater and Salvin on the female of one and the same species. It is fair to presume that both of Hargitt's specimens were wrongly sexed.

In reaching this independent conclusion I find I have been anticipated by Mr. W. H. Phelps, who has handled these very specimens and considerable additional material. He argues for the subspecific status of *xanthochlorus*, which he considers to be conspecific with *chrysochlorus*, and opines that it is a case of heterogynism, despite the discontinuous distribution thereby involved. On this point I do not agree with him at all. The characters shown by the female are to my mind more fundamental, and more significant, than the (perhaps fortuitous?) resemblance of the males of the two forms. But I agree with him as to the identity of Colombian with Venezuelan specimens, and I follow him in considering *aurosus* racially distinct, which on geographical grounds alone seems highly probable. See his discussion in Bol. Soc. Venezolana Cien. Nat., No. 56, 1943, 298-301.

Piculus flavigula magnus (Cherrie and Reichenberger).

This form was described and named on the basis of its longer wing and heavier bill. The type came from Matto Grosso. Later (Bull. Am. Mus. Nat. Hist., 60, 1930, 177) Mrs. Naumburg, after examining the specimens in the Vienna Museum (including Natterer's material) stated that the "valley of the Amazon" is the dividing line between the two forms. From a study of our series (39 specimens) it appears, however, that the significant difference between *flavigula* and *magnus* is not so much in size as in coloration, particularly in the males. In *flavigula* the adult male has a conspicuous crimson malar stripe, which is wanting in *magnus*. In both sexes the yellow of the throat is obviously purer and more uniform in *magnus*. This form occupies *both* banks of the Amazon as far down as the

Rio Negro (at least). (Natterer's specimens from Manaus [Manáos] were both females, it will be noted.) It is a well-marked race, but its range is not at all as its describers supposed.

Messrs. Griscom and Greenway (Bull. Mus. Comp. Zoöl., 88, 1941, 200) call our birds a "puzzling series of intermediates." I have not seen topotypes of *magnus*, it is true, but I can discern no intermediate characters in our series.

Piculus leucolaimus (Malherbe).

Twenty-three specimens: Buena Vista and Cerro Hosáne, Bolivia; Manacapurú (islands) and Rio Manacapurú, Brazil.

These are referred to by Mr. Carriker in the description of his supposed new race *australis* (Proc. Philadelphia Acad. Nat. Sci., 87, 1935, 318). He fails to list his material from Brazil with which he compared the Bolivian birds. Every character he gives for "*australis*" I find is a variable one within the series. For instance, in some examples the light markings on the underparts are rounded; in others they are linear. My suspicions are increased by Count Gyldenstolpe's remarks on Hellmayr's comparison of Rio Purús skins with Malherbe's types (K. Svenska Vet. Akad. Hand., 23, No. 1, 1945, 129). In my opinion it is quite unlikely that Matto Grosso specimens would be different from those coming from the eastern base of the Andes in Bolivia. Moreover, our Manacapurú specimens are absolutely indistinguishable from Bolivian skins. The record involves a considerable and unexpected extension of the heretofore known range.

Chrysoptilus punctigula guttatus (Spix).

Sixteen specimens: Santarem, Brazil.

Several writers—Hellmayr, Cory, Chapman, Oliverio Pinto, Griscom and Greenway, and more recently Gyldenstolpe—have discussed the problem of geographical variation in this species, but not all has been said. Their material was mostly inadequate and unsatisfactory, and their conclusions are not in accord. Count Gyldenstolpe, who had more and better material than his predecessors, has discussed the matter at some length but has not reached definite conclusions, except as to the status of Griscom and Greenway's *pallidior*—a name which is based in part on our series above listed. After an independent study of these specimens I agree with him that *pallidior* is inseparable from *guttatus*, despite the fact that in the original description of the former the authors are careful to state that the "characters of this subspecies have nothing to do with [those of] *guttatus*

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(Spix)." They compare their new form primarily with typical *punctigula* from French Guiana, from which it differs as they say.

Spix gave no locality for his *Picus guttatus* other than the "forests of the Amazon River." His figure represents a somewhat dull-colored example of the race found at Santarem. Our No. 73,172 is a good counterpart of his figure. Hellmayr, who studied Spix's type-specimen (Abhand. K. Baverischen Akad. Wiss., II Kl., 22, 1906, 606), says that it compares favorably with two females from Manaus collected by Natterer. Manaus and Santarem are given as the only known localities of record. Count Gyldenstolpe (K. Svenska Vet. Hand., 22, No. 3, 1945, 118) accepts the former on Hellmayr's authority as the restricted type-locality, but I cannot find that Hellmayr made any such definite restriction. Since we have no series of specimens from Manaus, and I do not know in fact which race of punctigula inhabits that region, I favor accepting Santarem instead as the typelocality. I am moved to do so on the ground of the series available from that place and because there is a specimen from Santarem agreeing in coloration and measurements with Spix's type. It seems to me that this is the more reasonable procedure. If we take Manaus we cannot possibly be sure, as yet, of the application of Spix's name: it might indeed refer to any one of three forms, as I shall show.

Hellmayr's measurements of the type-specimen accord with those of the Santarem series. They are small birds as compared with those from the middle and upper Amazon, from which they are separable on this ground alone. As Count Gyldenstolpe remarks, there is great variation in color, ranging, as regards the upperparts, from orange citrine to buffy citrine. The barring of the upperparts, although variable, is on an average not so heavy as in middle and upper Amazon birds. The Santarem specimens differ from true *punctigula* of French Guiana much as indicated by Messrs. Griscom and Greenway in their description of "*pallidior*" generally paler coloration, etc. Evidently these authors assumed that *guttatus* was the name applying to the population of the middle and upper Amazon, but in this I believe them to have been mistaken.

Two young in juvenal dress (March 25 and April 23) are duller and darker-colored; their throats are pure black. This is an interesting fact, indicating that the primitive form of this group was a black-throated bird. Hellmayr's attempt (quoted by Count Gyldenstolpe) to distinguish the Brazilian bird from that of Guiana by a supposed difference in the character of the black markings on the throat fails entirely in the light of our series, although the two are distinguishable otherwise.

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Chrysoptilus punctigula rubidipectus, subsp. nov.

Fourteen specimens: Arucauá, Obidos, and islands near Obidos, Brazil. *Type*, No. 84,484, Collection Carnegie Museum, adult male; Islands,
Obidos, Brazil, April 30, 1921; Samuel M. Klages.

Subspecific characters.—Similar to Chrysoptilus punctigula guttatus (Spix) as represented by specimens from Santarem, but more brightly colored throughout, and the breast with a decided wash of crimson, which is usually confluent (in the adult male) with the red malar stripe.

Range.—Brazil, north of the Amazon, from the region of Obidos northeastward to the French Guiana frontier, but the exact limits undetermined.

Remarks.—Malherbe's figure 5, plate 87, is a very good representtion of this form and was probably made from a specimen of Brazilian origin. It resembles *guttatus* in its relatively small size (as compared with *speciosus*), but it differs in its brighter general coloration, with the crimson prominent. All of our specimens are richly colored, as it happens, but probably this race has a dull-colored phase, as do the other races. Since it stands out so well in series upon comparison with the other forms, I have no alternative but to describe it as new. The only uncertainty concerns the matter of assigning a definite range to *guttatus*. If, as I believe, this latter form actually came from the south bank of the Amazon, the way is open to describe and to name the north-bank bird. Quite possibly the range of the latter is limited on the west by the Rio Negro.

Chrysoptilus punctigula speciosus Malherbe.

Twenty-seven specimens: Buena Vista, Bolivia; Hyutanahan, Nova Olinda, São Paulo de Olivença, Tonantins (opposite), Manacapurú, Caviana, and Rio Manacapurú, Brazil.

The amount and character of the variations this series shows parallel those in other races of this species. Notwithstanding, this form is readily separable from the Santarem bird by its larger size. One gets this impression as the two respective series lie side by side, and measurements confirm it. Moreover, the present race is duller and darker in general coloration than the other (when examples in the same phase of plumage are compared), and the barring on the upperparts is heavier. As in other races of this species, the intensity of the spotting on the underparts varies greatly. No. 98,960 is very heavily spotted below; 92,101, very lightly.

Hellmayr (quoted by Count Gyldenstolpe, K. Svenska Vet. Akad. Hand., 23, No. 1, 1945, 130) was uncertain what name upper Amazonian

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birds of this species should bear. I accept for them Sclater's manuscript name *speciosus*, first published by Malherbe (Mon. Picideés, 2, 1862, 181) and saved from being a *nomen nudum* only by the use of the name on his plate 87. Hargitt notes that the figure on this plate is mistakenly numbered 5 instead of 6, but Malherbe's intention is plain, as his text shows. Sclater's specimen came from the "Peruvian Amazon," and the figure correctly represents the present bird. The *Chrysoptilus guttifer* of Reichenbach, 1854, is racially unidentifiable, and the locality ascribed (Mexico) is an impossible one. So I pass over this name.

The present race inhabits the middle and upper Amazon Valley, west of the Rio Negro on the north bank. South of the Amazon it reaches the Rio Purús, and extends thence into Bolivia. Other records farther east I cannot place without actual examination of the specimens on which they were based.

Celeus innotatus innotatus Todd.

Description.—Male: upperparts in general, including pileum, sides of the head and neck, and wings externally, rich hazel, a little paler anteriorly, the upper back with a few (or no) small black spots, as likewise the wingcoverts; primaries broadly tipped and barred with dusky black, the barring becoming more or less obsolete on the outer webs of the feathers; tail like the back but rather paler (deep cinnamon), barred with black, and the middle rectrices tipped with black; chin, throat, and malar region Brazil red; rest of underparts deep cinnamon buff, with some scattered black spots, most numerous on the lower breast; "iris red to brown; feet dull plumbeous: bill dark horn, pale olive below" (Carriker). Wing (type), 121; tail, 66; bill, 23; tarsus, 18.

Female similar, but throat and malar region uniform with the rest of the underparts. Wing (No. 52,793), 119; tail, 64; bill, 21; tarsus, 19.

Range.—Lower Magdalena Valley and Rio Sinu region, but limits not known.

Remarks.—This species is apparently nearest to *C. loricatus*, from which it differs in having the spotting of the upper- and underparts, wings, etc., very much reduced both in size and extent, leaving only a few small spots on the breast and upper back in adult males. The spotting above and below is a variable quantity.

Cory (Field Mus. Zool. Ser., 13, pt. 2, 1919, 453) has placed *innotatus* in the synonymy of *mentalis*, but in this he is entirely mistaken, although the admittedly inadequate description, quoted in the preceding paragraph

substantially as it appeared in Proc. Biol. Soc. Washington, 30, 1917, 5, may have seemed to justify this course. The present bird has nothing to do with *mentalis*, with which it has been directly compared. It is known from five specimens from Jaraquiel and one from Gamarra, Colombia. The discovery of a geographical variant of *innotatus* from farther up the Magdalena Valley makes the use of a trinomial necessary.

Celeus innotatus degener Todd.

This is a smaller, paler race of *innotatus*, known only from three specimens from the type-locality; it is probably the form of the middle Magdalena Valley.

Celeus lugubris (Malherbe).

Thanks to Dr. Herbert Friedmann, I have before me a transcript of Malherbe's original Latin diagnosis of this species (Bull. Soc. d'Hist. Nat. Dept. Moselle, Metz, 1851, p. 77); it is identical with that in the same author's "Monographie des Picideés," 2, 1862, p. 19, except for the omission of one unessential phrase. The accompanying plate (54), purporting to represent the species, however, is composite. Figures 1, 3, and 4 agree more or less with Malherbe's diagnosis, while Figure 2, supposed to be the female, is really an unmistakable representation of the bird later described as Celeus kerri by Hargitt (Ibis, 1891, 605). We have a series of eleven specimens of a Woodpecker from Palmarito, Rio San Julian, Chiquitos, Bolivia, which fit the description and plate of *lugubris* as thus restricted, after allowance is made for the considerable individual variation in the barring of the upperparts. Although the light bars are wide in some examples and narrow in others, they are always buffy yellow in color, sometimes with a rusty tinge, but never rufous. The upper tail-coverts are usually yellow, like the rump.

Later authors have uniformly misapplied Malherbe's name *lugubris* to the form from Matto Grosso with rufous wing-bars and upper tail-coverts. Indeed, Mrs. Naumburg (Bull. Am. Mus. Nat. Hist., 60, 1930, 181) fixes Matto Grosso as the type-locality; but for this action there is no justification, since (so far as we know) the only form that occurs in Matto Grosso is the rufous-barred bird. In order to resolve the existing confusion, I propose (following Hargitt's lead) to restrict the application of Malherbe's name *lugubris* to Figure 1 of Plate 54 of his "Monographie," which figure would thus become the virtual type of his description. This shift leaves

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the rufous-barred bird usually called *Celeus lugubris* without a name, unless we accept the *Celeus roosevelti* of Cherrie (Bull. Am. Mus. Nat. Hist., 35, 1916, 183) as its proper designation. Mrs. Naumburg thinks that *roosevelti* was based on an off-colored, immature individual of the species under discussion. If she is correct, we would have:

Celeus lugubris Malherbe, 1851. Bolivian Chaco. Eleven specimens examined.

Celeus kerri kerri Hargitt, 1891. Paraguay and northern Argentina. Six specimens examined.

Celeus kerri roosevelti Cherrie, 1916. Matto Grosso and Goyaz, Brazil, to eastern Bolivia. I have examined intergrades between this form and kerri. This is the Celeus lugubris of authors in general but not of Malherbe. Fifteen specimens examined, including six (Carnegie Museum) from Puerto Suarez, eastern Bolivia.

So long as there was a dearth of specimens fitting Malherbe's description of *lugubris* there was admittedly some excuse for the misapplication of this name, but now that these are available the situation clears up satisfactorily.

Cerchneipicus tinnunculus occidentalis Hargitt.

Hellmayr (Nov. Zool., 17, 1910, 384) has discussed the variations shown by his series. From his remarks it appears that, while the Amazon population differs from that of eastern Brazil, the characters on which *angustus* Griscom and Greenway are based are not only unstable, but are by no means confined to birds from the region of the Rio Tapajóz; they occur in specimens from farther up the Amazon. I do not see how *angustus* can be maintained under these circumstances. We have thirteen specimens (including one from Buena Vista, Bolivia) which in my opinion are referable to *occidentalis*.

Crocomorphus flavus flavus (Müller).

Thirty-two specimens of this form have been examined. French Guiana birds are topotypical of *flavus;* those from Brazil are mostly topotypes of *inornatus* Cherrie. A wide degree of variation is observable. In fresh plumage the general coloration is dull yellow, which fades to buff with wear. The wings externally are dusky in some individuals, auburn in others, with all degrees between. The light spotting or feather-tipping on the wing-coverts varies also in amount and character. *C. f. inornatus* was

based on a supposed difference in the color of the wings and their coverts a difference which simply does not hold. Hellmayr (Nov. Zool., 17, 1910, 385) refers to similar variations in discussing specimens from the Rio Madeira. Consequently I cannot recognize *inornatus* on any grounds whatever.

Count Gyldenstolpe (K. Svenska Akad. Hand., 23, 1945, No. 1, 131, and 22, 1945, No. 3, 124) refers his specimens from the Rio Beni, the Rio Juruá, and the Rio Purús to *peruvianus* Cory, described from eastern Peru, on the ground of its deeper yellow coloration as compared with *inornatus*. At first glance our series from the upper Amazon, the Rio Purús, and Bolivia (one specimen from Buena Vista) appear more decidedly yellow than those from the lower Amazon, but on closer examination I find that this is simply because they are in fresher plumage than the majority of our lower Amazon birds. When specimens comparable for season and wear are compared the difference disappears. Of course, *peruvianus* may be a valid race, but I refer all our upper Amazon specimens to *flavus* proper. They vary quite as much as do the lower Amazon series.

Cniparchus hæmatogaster von Tschudi.

Some recent writers include this species in *Phlæoceastes*, together with the other species formerly ranged with *Scapaneus* (*cf.* Chapman, Bull. Am. Mus. Nat. Hist., 55, 1926, 367, note, 369). It differs from *Scapaneus*, however, in its shorter, more rounded wing, and particularly in its crest, which is shorter, rounded and "bushy," and composed of narrow, stiffened feathers. The banded inner webs of the remiges, to which Ridgway calls attention, are much like those found in *Phlæoceastes robustus*, the type of the genus, and are therefore not distinctive, but the general color-pattern is another character which supports generic rank.

Megapicos pollens pollens (Bonaparte).

Ridgway (Bull. U. S. Nat. Mus., No. 50, pt. 6, 1914, 180) was not sure whether this species, the type of *Megapicos* Malherbe (1848-49) was really congeneric with "*Picus*" hæmatogaster, the type of *Cniparchus* Cabanis and Heine, 1863. It (*pollens*) differs in having the crest much longer and fuller, and composed of soft feathers; the nostrils are completely concealed by the antrorse prefrontal feathers; and the style of coloration is different. I therefore would follow Chapman (Bull. Am. Mus. Nat. Hist., 55, 1936, 368-9) in recognizing both *Cniparchus* and *Megapicos* as distinct from

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Phlæoceastes. If these three groups are united, it would have to be under *Megapicos*, the oldest name.

Veniliornis fumigatus (D'Orbigny) and races.

Veniliornis fumigatus fumigatus, thirty-five specimens: La Cumbre de Valencia, Paramo de Rosas, Galipán, Silla de Caracas, Guamito, La Cuchilla, El Limon, Colonia Tovar, Pico Naiguata, and Santa Lucia, Venezuela; El Cauca, La Palmita, Ramirez, Cachiri, Bucaramanga, La Pica, Peña Blanca, Rio Negro, and La Cumbre, Colombia; Incachaca and Yungas de Cochabamba, Bolivia.

Veniliornis fumigatus exsul, four specimens: Sierra Nevada de Santa Marta (6000 ft.), Cerro de Caracas, and Paramo de Macotama, Colombia.

Veniliornis fumigatus tectricialis, one specimen: La Elvecia, Venezuela.

There was a time when I considered birds of this species from Venezuela to be recognizably distinct from those of Colombia. The latter I followed Chapman in calling fumigatus, although at that time I had not seen any specimens from the type-locality-Bolivia. The Venezuelan birds I accordingly described (Proc. Biol. Soc. Washington, 29, 1916, 97) as exiguus-a name long antedated by reichenbachi Cabanis and Heine. I was misled by Hargitt's treatment of this group in Volume 18 of the Catalogue of the Birds in the British Museum. A more recent and careful study of our series, which in the meantime has been considerably augmented, convinces me that there exist no sufficient grounds for separating birds from these respective countries under different names. Venezuelan birds average a little smaller than Colombian, and that is all. Variation in this series is excessive but appears uncorrelated with locality. There are apparently two phases, not according to sex nor season, but possibly due to age. One is golden brown; the other phase is much darker. At one time, after having examined the Colombian series in the American Museum, I thought I could make out Chapman's race aureus from western Colombia, but I now believe this was based on birds in the golden brown phase. We have specimens from Venezuela which compare favorably with others from the Western Andes. Chapman has since abandoned aureus (Am. Mus. Nov. No. 250, 1927, 1), while at the same time he described a supposed darker race from Peru (obscuratus), which latter Mr. Zimmer (Field Mus. Zool. Ser., 17, 1930, 210) finds also untenable; it was based on birds in the dark phase.

We have a pair of birds from Bolivia, the male of which is a close

counterpart of D'Orbigny's colored figure; the female is more golden brown in tone. These birds are fairly large, it is true, but some of the northern birds match them in this respect. I feel that no satisfactory distinction can be made between specimens from the northern and the southern extremities of the range. On the whole *Veniliornis fumigatus* appears to belong to the Subtropical Zone, but some of the specimens from Venezuela come from lower elevations.

My independent study of this species, I now find, agrees well enough with Zimmer's recent results (cf. Am. Mus. Nov. No. 1159, 1942, 5-9). However, Zimmer reinstates obscuratus from Peru, and by implication recognizes reichenbachi of the Caracas region of Venezuela—to which I do not agree. His most important finding is that the dark-colored birds are immature, as is shown by the different shape of the outer rectrices and remiges. I have verified this in our series. However, the dark-colored individuals are not all males, as he believes. We have one such specimen which is a female and which is losing the crimson feathers on the crown and is acquiring golden brown feathers on the breast. In some of these specimens the skulls are thin. Curiously enough, the wings and tail appear fresher, less worn, in these dark-colored birds than in the golden brown ones.

Mr. Zimmer very properly queries the validity of the Santa Marta *exsul*, which I described on the basis of four specimens (Proc. Biol. Soc. Washington, 33, 1920, 74). The chief character given was its generally darker coloration, which in view of the observable variation in this species is a character of questionable value. Now I find that this race is barely recognizable from *fumigatus* by its larger size (average), and particularly by its longer tail, which runs 60 mm., as against a maximum of 55 mm. in the nominate form. In color it is certainly close to Bolivian skins of *fumigatus*, both phases of which are represented, except that the posterior underparts are not paler colored, as in that form, but uniform with the rest. For the present the race may be allowed to stand.

Veniliornis chocoensis Todd.

This form was based on two males, one each from Potedo and from Malagita, in western Colombia. A fuller description is in order:

Pileum dull brown, the feathers of the forehead tipped with dark buff, those of the crown with crimson, in gradually increasing amount towards the nape, which has an indication of a buffy yellow posterior margin; back

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and wings externally (except outermost primary) rich golden brown; upper tail-coverts and tail irregularly barred with dusky and dull golden buff; inner webs of remiges with buffy white spots; sides of head dull brown; entire underparts heavily barred with buffy white and deep black, in fairly regular pattern, the breast strongly washed with ochraceous tawny; under wing-coverts buffy white, barred with black; "iris reddish brown; feet plumbeous olive; bill blackish horn-color, bluish flesh-color below" (Carriker). Wing (type), 94; tail (worn), 48; bill, 20; tarsus, 15.

This form apparently represents *Veniliornis cassini* in the Tropical Zone of western Colombia. It differs therefrom in having plain wing-coverts, and in being more heavily barred below, with the dark bars predominating. I think it will have to stand as a full species.

Veniliornis passerinus (Linnaeus) and races.

Veniliornis passerinus tapajozensis Gyldenstolpe, represented by eight specimens from Santarem, Brazil, is an excellent race, the characters of which I had noted shortly after the receipt of our specimens some years ago. It is readily separable by its rich coloration, with yellow prevalent; this is especially obvious in females. V. passerinus insignis Zimmer is rather brighter than typical passerinus, but duller than tapajozensis; from both of these it differs in its light-colored bill. It ranges on the south bank of the Amazon from the mouth of the Rio Negro (Caviana) west at least to São Paulo de Olivença, and south along the Rio Madeira. On the upper Rio Purús, however, it is replaced by another race, V. passerinus agilis (Cabanis and Heine), described from the Rio Napo, eastern Ecuador. Specimens from this general region compare favorably with our single example from Hyutanahan.

Veniliornis passerinus saturatus, subsp. nov.

Twelve specimens: Mana, French Guiana.

Type, No. 63,141, Collection Carnegie Museum, adult female; Mana, French Guiana, August 30, 1917; Samuel M. Klages.

Subspecific characters.—Similar and nearest to Veniliornis passerinus passerinus (Linnæus) of Cayenne, but general coloration darker and richer, the upperparts usually more or less washed with Mars orange, and the dark barring of the underparts obviously blacker, with less olivaceous shading.

Range.-Extreme western French Guiana, and probably extending east-

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ward into British Guiana. Chubb's description of his British Guiana specimens (Birds of British Guiana, 1, 1916, 488) would suggest such a reference.

Remarks.—One would certainly not expect to find two different races of this (or any) species in as slightly diversified a country as French Guiana, yet so there are. The majority of our specimens are apparently immature, but these show the characters of the race equally as well as the adults, when compared with examples of true *passerinus* of the same age and in the same stage of plumage. However, immature females, although they have the crown red, are likely to have the back dull green (dark citrine), as do also some specimens marked as males.

Compared with V. passerinus modestus Zimmer of the middle Orinoco, this form is much darker above and below, with more crimson wash; it appears entirely distinct. The discovery of a new race of this extremely plastic species so close to the type-locality of passerinus is certainly a surprise. Of the latter we have twenty-eight specimens from Cayenne for comparison.

Veniliornis passerinus modestus Zimmer.

Two specimens from Palmar, at the eastern base of the Eastern Andes, in the State of Boyaca, Colombia, would on geographical grounds be referred to *Veniliornis fidelis* (Hargitt). However, they agree closely with an example from Maripa, Rio Caura, Venezuela, and with five others (Collection American Museum), identified by Zimmer as *modestus*, from the middle Orinoco. In describing this new race he carefully discriminated it from *fidelis*, to which form, however, he referred a specimen from Ayacucho, Rio Orinoco. The Palmar record considerably extends the ascribed range of *modestus* and suggests that the respective ranges of *modes* and *fidelis* may overlap.

Veniliornis kirkii cecilii (Malherbe).

Mr. Griscom agrees with Chapman (Bull. Am. Mus. Nat. Hist., 55, 1926, 366) in declining to recognize Ridgway's *darienensis*, but I am not so sure. Our seven specimens from the Atrato and Chocó regions of Colombia are perceptibly darker-colored than those from the coast region and the Magdalena Valley. The barring on the underparts is heavier; the upperparts are more rufescent; and often in evidence are dull crimson tips on the wing-coverts. For the present, however, I do not insist on the separation.

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Dryobates villosus hyloscopus Cabanis and Heine.

We have eight specimens from the San Pedro Martir Mountains, northern Lower California. These have been separated as a distinct race, *scrippsæ* Huey (Trans. San Diego Soc. Nat. Hist., 5, 1927, 9), solely on the basis of their "decidedly smaller" size. Our specimens are comparable for season, but the difference in size fails to materialize. Five males from California measure: wing, 121-124; tail, 74-77; bill, 30-35. Five males from San Pedro Martir: wing, 119-122; tail, 74-77; bill, 30-32. I cannot see that a good case has been made out for the recognition of *scrippsæ*.

Dryobates scalaris cactophilus Oberholser.

After a careful study of our series of 73 finely prepared specimens of Cactus Woodpecker from north of the border, supplemented by certain specimens from other sources (including the type-specimen of D. scalaris symplectus Oberholser), I must confess that I can find no significant differences between birds from eastern Texas, Oklahoma, and Colorado on the one hand and those from western Texas, New Mexico, and Arizona on the other hand. The former (symplectus) are said to differ from the latter (cactophilus) by having the white bars wider, the black bars narrower, and the sides of the breast spotted rather than streaked. Also, the male is smaller, and there is more white on the pileum (fide Oberholser). Ridgway, comparing the two supposed races, merely says that cactophilus is "slightly larger, and with black bars on back, etc., decidedly broader" (than in symplectus). But when specimens taken at the same season and in the same stage of plumage are used for comparison, these alleged differences fade away. We have a good series of breeding birds from both regions, also birds in fresh unworn plumage, shot in September; they are strictly comparable, and are indistinguishable so far as locality is concerned. I cannot help but feel that Dr. Oberholser was misled into considering them as referable to two forms by the inadequate material then . available, but there is no further excuse for continuing this treatment.

The type-specimen of *symplectus* is an individual with an unusual amount of white on the upperparts. I can detect no constant difference in color between *symplectus* and *cactophilus*, but there is a slight average difference in size, evident in the length of the wing. This distinction amounts to only a few millimeters and is completely bridged over by individual variation. In my opinion the entire series should bear the name *cactophilus*, which has page priority over *symplectus*. Moreover, the A. O. U. Com-

mittee must have regarded the Mexican form once known as *bairdi* as the same as *symplectus*, since they say that the latter is the earliest name for the present bird—*cf*. Check-List N. Am. Birds, ed. 4, 1931, 289. But if, as I insist, *symplectus* and *cactophilus* are indistringuishable, there remains no good reason for retaining the former name, whether or not the Mexican bird once known as *bairdi* is separable.

Van Rossem (Condor, 44, 1942, 24) has described two new races of this Woodpecker from southern California. I cannot make out either of these with our material, and I agree with Grinnell and Miller (Pacific Coast Avifauna No. 27, 1944, 244, note) that their recognition might well be held in abeyance.

Dryobates borealis (Vieillot).

Ridgway (Bull. U. S. Nat. Mus. No. 50, pt. 6, 1914, 270, note) comments on the "decidedly shorter" wings of (peninsular) Florida specimens, but he does not venture to separate them subspecifically. Dr. Alexander Wetmore (Proc. U. S. Nat. Mus., 90, 1941, 498), after examination of a considerable series, takes this step and calls the southern form *hylonomus*. I am not inclined to accept this separation any more than does Ridgway; I consider that the actual difference in size between the two groups—a difference which applies to the wing alone—is too small to justify such a distinction. On the average, it is 113.8 mm. as against 119.2. If there were color differences too the form would have much better standing, but none are apparent. We have one specimen from Hillsboro County, Florida, which has a wing 118 mm. long—a figure within the size limit of typical *borealis*.

Dryobates albolarvatus (Cassin).

Even with the aid of borrowed specimens from the U. S. National Museum collection I can find no justification for the recognition of *gravirostris*.

Sphyrapicus thyroideus nataliæ (Malherbe).

Undeniably, the bills of Rocky Mountain birds of this species average shorter than do those from the Pacific coast, just as Swarth claims (Condor, 19, 1917, 62-65), but is the difference worth recognizing by name? Ridgway evidently thought not, and I doubt it myself.

Picumnus squamulatus squamulatus Lafresnaye.

In recording a specimen of this species from the Santa Marta region (Ann. Carnegie Mus., 14, 1922, 234), I hazarded the opinion that the name

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obsoletus, applied by Allen to the bird from El Pilar, northeastern Venezuela, was almost certainly based on an individual variant. But now come Messrs. Zimmer and Phelps (Am. Mus. Nov. No. 1270, 1944, 6), who contend that obsoletus is a valid race with a very restricted range. It must be restricted indeed, since our three specimens from the Cumaná region of Venezuela fail to show any peculiarities. These authors discriminate the Venezuelan bird under the name rohli, to which they assign all specimens from that country except topotypes of obsoletus. With every disposition to follow their findings, I have again gone over our series of this species (68 skins) with considerable care, and I cannot verify any of the differences on which they rely to separate Venezuelan birds from Colombian. Indeed, some of the most heavily marked examples in the series come from the coast region of Venezuela. There is considerable variation in the intensity of the markings, it is true, but some of this is seasonal; in worn plumage the dark feather-edgings tend to wear down more or less.

Picumnus macconnelli macconnelli Chubb.

This from was described from British Guiana—supposedly. Hellmayr (Nov. Zool., 13, 1906, 349) compared birds from Pará with the typespecimen and found them identical therewith. Meanwhile Miss Snethlage (Orn. Monatsber., 14, 1906, 60) had based the name amazonicus on birds from this very region. Chubb figured the species in Volume 1 of his Birds of British Guiana, 1916, pl. 10, fig. 1. No other specimens from British Guiana ever materialized, but no suspicions as to the authenticity of the type-specimen arose until 1927, when Mr. N. P. Kinnear discovered that two of the specimens which Chubb had labeled macconnelli really belonged to an obviously distinct form. He thereupon proceeded to christen it Picumnus cirratus confusus. The type-specimen of macconnelli was without original data, and its source was open to doubt (cf. Bull. British Orn. Club, 47, 1927, 112-113). Now, it so happens that we have a series of 33 specimens of a Picumnus fitting the description and figure of macconnelli (32 from Santarem and one from Obidos). Five of these, together with five of a lighter-colored form from Mana, French Guiana, were sent to Mr. Kinnear for comparison, and his report is as follows:

"I think there is little doubt that *Picumnus macconnelli* comes from Brazil, and your specimens from Santarem agree with the type.

"The skins from Mana agree with the type of *P. cirratus confusus* if one allows for a slight difference due to the bad makeup of the type skin from the Takutu River and the only other skin from the Takutu Mts."

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Mr. Kinnear thinks that *confusus* is a race of *cirratus* but is doubtful about *macconnelli* being one also. I have compared both forms directly with *cirratus* of southern and southeastern Brazil; and I feel that, although obviously related, they are best considered specifically distinct, not only by reason of certain significant differences, but also because of their separated range. On the other hand, the relationship between *macconnelli* and *confusus* is so close that I believe they ought to stand as conspecies— *P. macconnelli macconnelli* and *P. m. confusus*. Of the latter we have a series of 27 specimens. They differ from *macconnelli* in being more lightly banded below, with more brownish wash on the sides and flanks. It is probably in order to formally propose substituting Pará, Brazil, as the revised type-locality for *macconnelli*.

Picumnus varzeæ Snethlage.

This is a remarkably distinct, isolated species, which was so inadequately described at the time than when Hellmayr first looked at our series, he declared they could not be *varzea*; but later he revised his opinion. A fuller description is in order:

Male: general color deep olive brown, with faint darker centers to the feathers of the back; wings a little darker (clove brown), the secondaries with inconspicuous paler edgings; tail black, the middle rectrices with the white markings usual in this genus; pileum and nape deep black, the feathers of the forehead and fore crown broadly tipped with English red, the hind crown and nape with very small white spots or dots; sides of head, the throat, and the fore breast brownish black, passing into raw umber on the lower breast, with faint darker centers to the feathers, and often with small white spots, irregularly disposed. "Iris dark vinaceous red; feet slate-color; maxilla black, with patches of horn gray on either side of the basal portion; mandible pale bluish gray with dark apex" (Klages). Wing, 52-56; tail, 29-31; bill, 13-15, tarsus, 13-15.

Female similar, but usually duller, more brownish, with paler featheredgings on the abdomen, producing a slightly squamate effect; pileum deep black, spotted with white.

We have 72 specimens of this Piculet; all are from the islands in the Amazon near Obidos.

Picumnus pusillus Oliverio Pinto.

Eighteen specimens: Manacapurú and Rio Manacapurú, Brazil. This species was described from Codajaz on the north bank of the Rio

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Solimoës, not far above Manacapurú, where also it was later taken by the same collector (cf. Oliverio Pinto, Rev. Mus. Paulista, 20, 1936, 234; and 23, 1938, 563). The description calls for a bird that is uniformly gray above, with only a light wash of olive; whereas our birds are dull dark citrine above, with faint darker centers to the feathers; the underparts are pale cream color or buffy white, paler on the throat, and regularly barred with dusky black, but not nearly so heavily as in *P. exilis buffoni*. In spite of these divergencies from the description I have little doubt of the identity of these specimens, if for no other reason that this was the only species of Piculet found at Manacapurú.

Picumnus aurifrons (von Pelzeln) and races.

The nominate race comes from Matto Grosso, Brazil (Engenho do Gama, *fide* Naumburg); it is characterized by the streaking of the underparts below the breast. *P. aurifrons flavifrons* was described by Hargitt from Sarayacu, eastern Peru, and for a long time was known from the type alone. We have a pair of birds from Nova Olinda, a locality on the west bank of the Rio Purús. They agree precisely with a specimen from Teffé (Rothschild Collection) which Hellmayr had compared with Hargitt's type (*cf.* Nov. Zool., 14, 1907, 80). The range of this form may now be defined as the region south of the Amazon and west of the Rio Purús. In this race the barring and spotting of the underparts are decidedly heavier and more distinct than in *P. aurifrons wallacii*. The pileum, however, is brown, not black, as is said to be the case in the type-specimen of *flavifrons*.

On the right bank of the Rio Purús, however, lives a Piculet which resembles *flavifrons* but is easily separable therefrom. It is duller and paler below, with the cross-barring on the breast less distinct, as also is the spotting on the abdomen. There is considerable variation in the exact character of these markings, however, in our series of thirteen specimens, which come from Arimã on the Rio Purús and Caviana on the south bank of the Rio Solimoës. They agree precisely with the two specimens from Humaythá on the Rio Madeira (Rothschild Collection) which were discussed by Hellmayr (Nov. Zool., 14, 1907, 398), and also with the colored figure of *Picumnus wallacii* in the Catalogue of the Birds in the British Museum, 18, 1890, pl. 14, fig. 3. It is odd that Hellmayr should have failed to notice this correspondence; he calls these specimens *aurifrons*. In an earlier paper (*ibid.*, p. 80) he comments on the status of *wallacii*, which he suspects may be the same as *aurifrons*. He says that the type of the former is a

young bird and thinks its peculiarities "may be merely signs of immaturity." I doubt this, if for no other reason that in juvenal plumage these Piculets would scarcely have the pileum spotted as the plate represents; in allied forms the pileum is plain at this stage. The type of wallacii was said to have come from the "upper Amazon"—an indefinite locality, not to be taken too literally. The range of wallacii can now be assigned to the region south of the Amazon and between the Rio Madeira and the Rio Purús.

On the upper Rio Purús, however, lives a fourth member of this group, an apparently unnamed race which I propose to call

Picumnus aurifrons purusianus, subsp. nov.

Type, No. 86,833, Collection Carnegie Museum, adult male; Hyutanahan, Rio Purús, Brazil, December 29, 1921; Samuel M. Klages.

Subspecific characters.—Similar to P. aurifrons aurifrons von Pelzeln of Matto Grosso, Brazil, but upperparts darker, less olivaceous; pileum duller brown, less blackish; breast more heavily barred; and posterior underparts with the markings inclining to spots. Similar also to P. aurifrons flavifrons, but breast more heavily barred, and posterior underparts not so distinctly spotted.

Range.-Upper Rio Purús, Brazil, but exact limits unknown.

Remarks.—This is a perfectly distinct form, easily separable in series from both aurifrons and flavifrons, although in certain characters it is intermediate between them. It is heavily marked below—much more heavily than any other member of this group, in which respect it approaches *P*. lafresnayi. In *P. aurifrons aurifrons* the underparts below the breast are definitely streaked; in the new form there are streaks, spots, and bars in confused pattern. Of this new race we have four specimens, all from Hyutanahan.

Picumnus transfasciatus Hellmayr and Gyldenstolpe.

Six specimens: Colonia do Mojuy, Miritituba, Aveiros, and Santarem, Brazil. *Picumnus transfasciatus* is a strongly marked form; it is so different on comparison with *P. aurifrons* and its several races that I have no hesitation in according it specific rank, the more so as the birds of the middle Amazon and the lower Rio Purús show no signs of intermediacy.

The sedentary habits of these little Piculets and their inability to cross even secondary river barriers would seem to make them peculiarly susceptible to racial variations arising from isolation.



Todd, W. E. Clyde. 1946. "Critical notes on the Woodpeckers." *Annals of the Carnegie Museum* 30, 297–317. <u>https://doi.org/10.5962/p.214552</u>.

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